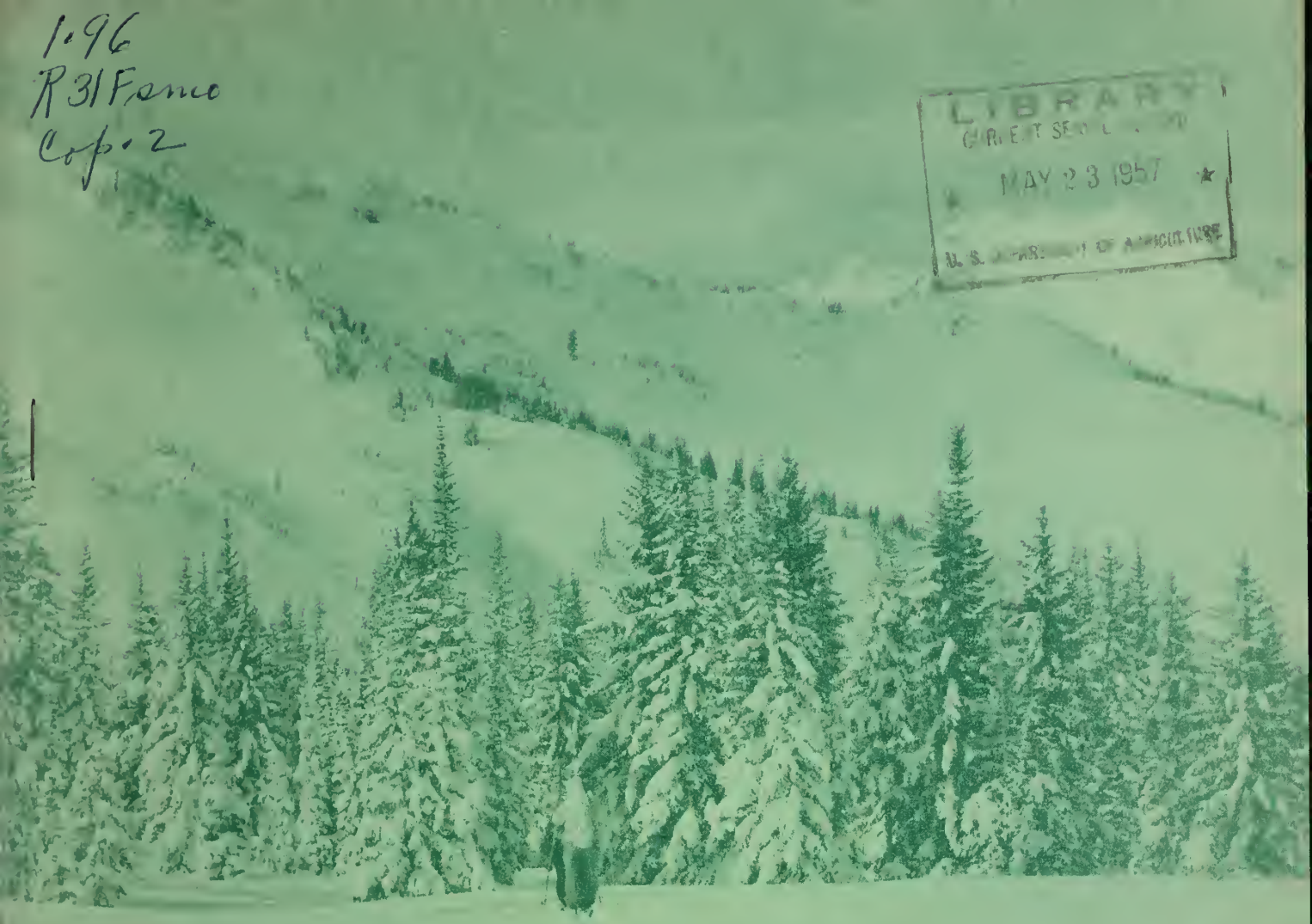

FEDERAL - STATE COOPERATIVE
SNOW SURVEYS and WATER SUPPLY FORECASTS
for
MONTANA & NORTHERN WYOMING

UNITED STATES DEPARTMENT of AGRICULTURE···SOIL CONSERVATION SERVICE.
and
MONTANA AGRICULTURAL EXPERIMENT STATION

In cooperation with the U. S. Forest Service, U. S. Geological Survey, National Park Service, U. S. Bureau of Reclamation, State Engineers of Montana and Wyoming and other Federal, State and local Organizations.

AS OF
MAY 1, 1957

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TO RECIPIENTS OF COOPERATIVE SNOW SURVEY
AND WATER SUPPLY FORECAST REPORTS

Snow surveys in the west are conducted each year at more than 1200 snow courses. Basin and Province or State snow survey reports summarizing the results of the measurements and forecasts of seasonal runoff and water supply are issued by the Soil Conservation Service, U. S. Department of Agriculture and some of its cooperators; the Water Rights Branch of the British Columbia Department of Lands and Forests; and the California Division of Water Resources.

Copies of the various federal-state cooperative snow survey reports listed below may be secured by writing to:

Head, Water Supply Forecasting Section
Soil Conservation Service
209 S. W. 5th Avenue
Portland 4, Oregon

BASIN REPORTS:

Colorado, Rio Grande, and Platte-Arkansas River Basins	Issued monthly February through May by SCS and Colorado Experiment Station, Fort Collins, Colorado.*
Columbia River Basin	Issued monthly January through May by Soil Conservation Service, Boise, Idaho.*
Upper Missouri River Basin	Issued monthly February through May by SCS and Montana Agricultural Experiment Station, Bozeman Montana.*
West-Wide Water Supply Outlook	Issued April 1 by Soil Conservation Service and Cooperators, Portland, Oregon

STATE REPORTS:

Arizona	Issued semi-monthly January 15 through April 1 by SCS and Salt River Valley Water Users Association, Phoenix, Arizona.*
Nevada	Issued monthly February through April by SCS and Nevada State Engineer, Reno, Nevada.*
Oregon	Issued monthly January through May by SCS, Portland, Oregon, and Oregon Agricultural Experiment Station.*
Utah	Issued monthly January through May by SCS, Salt Lake City, Utah, and State Engineer of Utah and Utah Agricultural Experiment Station.*
Washington	Issued monthly February through May by SCS, Spokane, Washington, and State Department of Conservation and Development.*
Wyoming	Issued monthly February through May by SCS, Casper, Wyoming, and State Engineer of Wyoming.*

*Special reports are issued as needed.

The British Columbia reports are issued February 1 through June 1 and may be secured from Comptroller, Water Rights Branch, Department of Lands and Forests, Parliament Building, Victoria, B. C.

The California reports are issued monthly February 1 through May 1 and may be secured from Division of Water Resources, California Department of Public Works, Sacremento, California.

The annual water supply forecasts of the Weather Bureau are available in monthly bulletins published from January through May. These bulletins entitled, "Water Supply Forecasts for the Western United States" may be obtained from River Forecast Center, Weather Bureau, 712 Federal Office Building, Kansas City 6, Missouri.

FEDERAL - STATE COOPERATIVE

SNOW SURVEYS and WATER SUPPLY FORECASTS

for

MONTANA AND NORTHERN WYOMING

(Upper Missouri and Upper Columbia River Basins)

Report Prepared by:

A. R. Codd
Hydraulic Engineer
Soil Conservation Service

and

P. E. Farnes
Civil Engineer
Soil Conservation Service

Soil Conservation Service
U. S. Department of Agriculture
Bozeman, Montana

Report issued by:

Herschell D. Hurd
State Conservationist
of Montana

O. W. Monson
Irrigation Engineer
Montana Agricultural
Experiment Station

M. M. Kelso, Director
Montana Agricultural
Experiment Station

WATER SUPPLY OUTLOOK
FOR THE STATE OF MONTANA
as of
May 1, 1957

May first Snow Surveys indicate a GOOD irrigation and power water supply this season from the Upper Missouri River Basin. Most measurements show more water content than April first. Valley precipitation was, generally, above the April average.

May first snow measurements in the Yellowstone Basin are 30 per cent above average, insuring a GOOD water supply for this stream and its tributaries.

On the Columbia Basin in Montana, May first snow measurements at high elevations are equal to or greater than April first. This would indicate a GOOD water supply from this basin. The Clark Fork is still a little short of snow in the upper end. At Missoula and downstream points, forecasts have been raised 6 to 10 per cent over April first figures. The South Fork of the Flathead is forecast to yield 2,058,000 acre feet or 100 per cent average April-September flow. Valley precipitation during April was below normal over all tributary basins of the Upper Columbia, except over the Flathead where a 0.13 inch above average occurred during April.

The May first Storage in irrigation reservoirs is down somewhat from the average for May first. It is anticipated that the spring runoff should fill these reservoirs. Holter reservoir has been drawn down for equipment repairs.

MONTANA STREAM-FLOW FORECASTS MAY 1, 1957

The following summarized runoff forecasts are based principally on mountain snow cover and on the assumption that precipitation and temperature during the forecast period will be near average. Appreciable deviations from normal of precipitation and temperature during the forecast period will correspondingly modify these forecasts.

UPPER MISSOURI RIVER IN MONTANA	Seasonal Stream-Flow in Thousands of Acre Feet					
	FORECAST RUNOFF	% 15-Yr. AVG.	FORE-CAST PERIOD	Measured Runoff 1955**	Measured Runoff 1954	15-Yr. AVG. 1938-52
RED ROCK RIVER						
Monida (near) (1)	82	101	Apr-Sept	71	58	81
	76	100	Apr-July	66	52	76
BEAVERHEAD RIVER						
Barratts (at)	178	100	Apr-Sept	119	96	177
	134	100	Apr-July	87	71	134
BIG HOLE RIVER						
Melrose (near)	631	85	Apr-Sept	592	541	745
	584	85	Apr-July	548	497	687
JEFFERSON RIVER						
Sappington (at)	879	83	Apr-Sept	793	533	1057
	780	83	Apr-July	725	564	938
MADISON RIVER						
West Yellowstone (near)	210	106	Apr-Sept	183	219	198
	160	106	Apr-July	136	168	151
Grayling (near) (2)	445	106	Apr-Sept	345	420	420
(Net inflow to Hebgen Lk)	352	106	Apr-July	274	332	333
McAllister (near) (3)	765	105	Apr-Sept	593	658	726
	617	105	Apr-July	481	521	585
GALLATIN RIVER						
Gateway (near)	432	97	Apr-Sept	350	365	445
	372	97	Apr-July	296	310	384
Logan (at)	450	94	Apr-Sept	384	322	478
	386	94	Apr-July	336	261	410
Hyalite Cr. R.S. (at)	32	90	Apr-Sept	34	32	35
	27	90	Apr-July	29	27	30
MISSOURI RIVER						
Toston (at) (3)	2035	80	Apr-Sept	1730	1561	2535*
	1722	79	Apr-July	1549	1322	2191*
Fort Benton (at) (4)	3116	92	Apr-Sept	2986	2608	3381
	2627	91	Apr-July	2557	2174	2874
Virgelle (at) (4)	3726	93	Apr-Sept	3708	3395	4013
(Loma)	3181	92	Apr-July	3232	2869	3445
Zortman (near) (4)	3960	91	Apr-Sept	4264	3749	4357
	3370	90	Apr-July	3698	3164	3726
Ft. Peck Dam (below) (5)	3783	87	Apr-Sept	3734	3315	4362
	3278	89	Apr-July	3049	2580	3666
Williston N. D.						
(Inflow to Garrison R.(5)	9920	84	Apr-Sept	9533	8964	11750
	8491	83	Apr-July	8304	7343	10228

(1) Observed flow plus change in Storage in Lima Reservoir
(2) Observed flow plus change in Storage in Hebgen Lake
(3) Observed flow plus change in Storage in Hebgen and Ennis Lakes
(4) Observed flow plus change in Storage in Canyon Ferry
(5) Observed flow plus change in Storage in Canyon Ferry and Ft. Peck Reservoirs
(*) Average is for less than 15 years of record in the 1938-52 period
(**) Preliminary data furnished by U. S. Geological Survey subject to correction

MONTANA STREAM-FLOW FORECASTS MAY 1, 1957

UPPER MISSOURI RIVER IN MONTANA	Seasonal Stream-Flow in Thousands of Acre Feet					
	FORECAST RUNOFF	% 15-Yr. AVG.	FORE-CAST PERIOD	Measured Runoff 1955**	Measured Runoff 1954	15-Yr. AVG. 1938-52
SUN RIVER						
Net inflow to Gibson Reservoir	546	96	Apr-Sept	517	748	570*
	499	96	Apr-July	468	691	521*
MARIAS RIVER						
Shelby (near)	511	97	Apr-Sept	614	784	527
	470	97	Apr-July	561	715	482
Brinkman (near)	519	101	Apr-Sept	638	767	514
	478	98	Apr-July	575	700	486
MUSSELSHELL RIVER						
Delpine (near)	4.8	71	Apr-Sept	3.6	3.1	6.8*
	4.0	71	Apr-July	2.9	2.4	5.6*
Harlowton (at)	62	71	Apr-Sept	23.2	26.1	87.5
	58	72	Apr-July	18.9	20.4	80.9
Mosby (at)	105	63	Apr-Sept	38.2	35.0	165.7
	98	63	Apr-July	37.2	17.5	155.4
YELLOWSTONE RIVER						
Corwin Springs (at)	1885	101	Apr-Sept	1527	2014	1870
	1573	101	Apr-July	1254	1686	1556
Livingston (near)	2142	100	Apr-Sept	1621	2232	2143
	1769	100	Apr-July	1298	1848	1770
Billings (at)	3865	96	Apr-Sept	2958	3642	4025
	3319	96	Apr-July	2549	3129	3446
Miles City (at)	5551	87	Apr-Sept	4381	4735	6369
	4750	88	Apr-July	3816	3980	5421
Sidney (near)	5736	86	Apr-Sept	4553	4765	6648
	4970	87	Apr-July	4082	3991	5724
SHIELDS RIVER						
Wilsall (near)	24	60	Apr-Sept	29.2	29.8	40.1
	22	59	Apr-July	27.3	27.6	37.6
Clyde Park (at)	57	54	Apr-Sept	72.1	65.0	105.6
	53	54	Apr-July	67.0	60.4	98.0
CLARK FORK RIVER						
Chance (at)	546	94	Apr-Sept	419	600	580
	489	94	Apr-July	386	553	517
Edgar (at)	573	93	Apr-Sept	422	619	614
	506	94	Apr-July	384	561	539

(*) Average is for less than 15 years of record in the 1938-52 period
(**) Preliminary data furnished by U. S. Geological Survey subject to correction

MONTANA STREAM-FLOW FORECASTS MAY 1, 1957

MISSOURI RIVER BASIN YELLOWSTONE RIVER TRIBUTARIES IN WYOMING	Seasonal Stream-Flow in Thousands of Acre Feet FORECAST RUNOFF	% 15-Yr. AVG.	FORE- CAST PERIOD	Measured Runoff 1955**	 1954	15-Yr. AVG. 1938-52
NORTH POPO AGIE Milford (near)	85	102	Apr-Sept	-	-	83E
LITTLE POPO AGIE Lander (near)	48	91	Apr-Sept	25	39	53E
POPO AGIE RIVER Riverton (near)	325	94	Apr-Sept	171	230	345E
WIND RIVER Dubois (at)	92	90	Apr-Sept	66	105	102E
Riverton (at) (8)	375	73	Apr-Sept	101	287	511
Boysen (below) (9)	800	85	Apr-Sept	401	629	939
BIG HORN RIVER Kane (at) (8)	1100	82	Apr-Sept	703	696	1345
SHOSHONE RIVER Buffalo Bill Dam(bel)(12)	880	107	Apr-Sept	534	766	823
SHELL CREEK Shell (near)	74	100	Apr-Sept	-	-	74E
CLARKS FORK Chance (at)	546	94	Apr-Sept	419	600	580

(8) Observed flow plus Storage in Bull Lake and Pilot Butte Reservoirs
(9) Observed flow plus Storage in Boysen Reservoir
(12) Observed flow plus Storage in Buffalo Bill Reservoir
(**) Preliminary data furnished by U. S. Geological Survey subject to correction
(E) Estimated values

MONTANA STREAM-FLOW FORECASTS MAY 1, 1957

UPPER COLUMBIA RIVER IN MONTANA	Seasonal Stream-Flow in Thousands of Acre Feet					
	FORECAST RUNOFF	% 15-Yr. AVG.	FORE-CAST PERIOD	Measured Runoff 1955**	Measured Runoff 1954	15-Yr. AVG. 1938-52
CLARK FORK RIVER						
Bonner (above) (14)	541	70	Apr-Sept	739	611	771
	476	70	Apr-July	645	512	678
	410	70	Apr-June	428	428	583
Missoula (above)	1511	94	Apr-Sept	1590	1737	1602
	1350	94	Apr-July	1386	1535	1429
	1164	95	Apr-June	994	1248	1229
Missoula (below)	2789	94	Apr-Sept	3094	3309	2971
	2520	93	Apr-July	2804	2979	2700
	2209	95	Apr-June	2070	2384	2335
St. Regis (at)	3766	95	Apr-Sept	4210	4868	3952
	3409	95	Apr-July	3776	4414	3582
	2998	96	Apr-June	2835	3581	3106
Plains (near) (15)	10630	99	Apr-Sept	11038	14695	10747
	9542	97	Apr-July	10018	13274	9813
	7042	94	Apr-June	7810	10423	8434
Thompson Falls (at)(15)	11317	98	Apr-Sept	11705	15370	11545
	10422	98	Apr-July	10675	13911	10604
	8972	98	Apr-June	8322	10981	9128
Cabinet Gorge (at)	11963	99	Apr-Sept	12456E	16510	12090
	10871	98	Apr-July	11319E	14685	11056
	9224	97	Apr-June	9605E	11737	9493
BLACKFOOT RIVER						
Bonner (near)	970	112	Apr-Sept	851	1126	864
	874	112	Apr-July	742	1077	778
	754	112	Apr-June	566	820	674
BITTERROOT RIVER						
Darby (near)	552	105	Apr-Sept	540	523	525
	512	105	Apr-July	500	480	487
	448	105	Apr-June	394	398	429
At Mouth (16)	1444	105	Apr-Sept	1504	1725	1369
	1347	106	Apr-July	1418	1598	1270
	1189	108	Apr-June	1075	1396	1105

(14) Difference in observed flow, Clark Fork above Missoula & Blackfoot at Bonner
(15) Observed flow plus change in Storage in Flathead Lake & Hungry Horse Res.
(**) Preliminary data furnished by U. S. Geological Survey subject to correction
(E) Estimated values
(16) Difference in observed flow, Clark Fork above and below Missoula

MONTANA STREAM-FLOW FORECASTS MAY 1, 1957

UPPER COLUMBIA RIVER IN MONTANA	Seasonal Stream-Flow in Thousands of Acre Feet					
	FORECAST RUNOFF	% 15-Yr. AVG.	FORE-CAST PERIOD	Measured Runoff 1955**	Measured Runoff 1954	15-Yr. AVG. 1938-52
FLATHEAD RIVER						
Columbia Falls (near)	1807	105	Apr-Sept	1745	2741	1729
(North Fork)	1646	105	Apr-July	1576	2444	1575
	1417	105	Apr-June	1232	1874	1350
Columbia Falls (at)(17)	5660	101	Apr-Sept	5708	8267	5619
	5276	101	Apr-July	5268	7559	5214
	4624	102	Apr-June	4208	5923	4530
Polson (near) (15)	6589	101	Apr-Sept	6594	9742	6520
	6122	101	Apr-July	6112	8886	6058
	5281	101	Apr-June	4858	6884	5226
MIDDLE FORK FLATHEAD RIVER						
West Glacier (near)	1685	101	Apr-Sept	1682	2446	1662*
	1560	101	Apr-July	1551	2245	1540*
	1317	99	Apr-June	1224	1743	1322*
SOUTH FORK FLATHEAD RIVER						
Columbia Falls (near)(17)	2058	100	Apr-Sept	2085	2852	2058
(Net inflow to Hungry	1954	100	Apr-July	1977	2693	1950
Horse Reservoir)	1741	101	Apr-June	1630	2178	1724
SWAN RIVER						
Big Fork (near)	668	114	Apr-Sept	570	676	584
	594	115	Apr-July	499	589	518
	495	116	Apr-June	378	413	427

(15) Observed flow plus change in Storage in Flathead Lake & Hungry Horse Res.
(17) Observed flow plus change in Storage in Hungry Horse Reservoir
(*) Average is for less than 15 years of record in the 1938-52 period
(**) Preliminary data furnished by U. S. Geological Survey subject to correction

UPPER MISSOURI RIVER BASIN
SNOW SURVEY COURSES
IN
MONTANA & NORTHERN WYOMING

LEGEND

- □ TOWNS AND CITIES
- ● 13D4 SNOW SURVEY COURSE
- ○ 9G1 IDAHO & WYOMING NUMBERS
- ▲ STREAM GAGING STATIONS

1957

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE
BOZEMAN MONTANA

SCALE IN MILES 50 0 25 50 100

KOOTENAI
FLATHEAD
ST. MARY
MILK
MARIAS
MILK
LIBBY
KALISPELL
COLUMBIA FALLS
HAVRE
GLASGOW
THOMPSON FALLS
POLSON
CHOTEAU
TETON
SUN
FLATHEAD
MIDDLE FORK
SUN RIVER
AUGUSTA
GREAT FALLS
UPPER MISSOURI
ST REGIS
MISSOULA
BLACKFOOT
LEWISTOWN
IDAHO
HELENA
MUSSELSHELL
LOWER YELLOWSTONE
HAMILTON
DARBY
ANACONDA
BUTTE
BITTERROOT
BIG HOLE
JEFFERSON
BEAVERHEAD
RUBY
MADISON
GALLATIN
UPPER YELLOWSTONE
DILLON
LIVINGSTON
CORWIN SPRINGS
CLARK FORK (YELLOWSTONE RIVER)
RED LODGE
BILLINGS
POWDER RIVER
TONGUE
SHERIDAN
ARVADA
BUFFALO
MONTANA
WYOMING
SHOSHONE
GREYBULL
BIGHORN
NOWOOD
SHELL
WIND
DUBOIS
OWL THERMOPOLIS
POPO AGIE
RIVERTON
LANDER
KAYCEE
WILEY CITY
DAKOTA

INDEX TO MONTANA & NORTHERN WYOMING SNOW COURSES

Drainage Basin and Course Name	Montana Number	Elev.	Location Sec.	Location Lat.	Location Twp.	Location Range Long.	Record Began	Measuring Dates	Measured By
JEFFERSON RIVER									
(ROCK-BEAVERHEAD)									
Lakeview Ridge	11E3	7460	27	14S	2W	1948	3,4,5	10
Lakeview Canyon	11E4	6930	26	14S	2W	1948	3,4,5	10
Limekiln	12E2	6950	5	15S	9W	1948	3,4	1
White Pine Ridge	12E1	8850	18	14S	9W	1948	3,4	1
(HORSE PRAIRIE)									
Bloody Dick	13D10	7600	12	8S	16W	1948	3,4	1
Gold Stone	13D9	8160	11	8S	16W	1948	3,4	1
Lemhi Pass	13E1	7480	9	10S	15W	1948	3,4	1
Terrell Creek	13D12	6650	14	9S	15W	1948	3,4	1
Trail Creek	13E2	7090	15	10S	15W	1948	3,4	1
Selway Junction	13D11	6800	27	8S	15W	1948	3,4	1
(BIG HOLE)									
Big Hole Pass	13D3	7400	28	3S	18W	1948	3,4	1
Big Hole Pass-Be.	13D4	6900	24	3S	18W	1948	3,4	1
East Boundary	13D5	6700	22	3S	17W	1948	3,4	1
Gibbons Pass	13D2	7100	4	2S	19W	1934	1,2,3,4,5	1,3
Jahnke Creek	13D8	7340	25	7S	16W	1948	3,4	1
Miner Forks	13D6	7300	24	6S	17W	1948	3,4	1
Miner Lake	13D7	6720	10	6S	16W	1945	3,4,5	1
(WISE RIVER)									
Anderson Mdw.	13D14	7000	18	3S	12W	1948	3,4	1
Elk Horn	13D15	8450	15	4S	12W	1934	3,4,5	3
Wise River	13D13	6300	15	2S	12W	1948	3,4	1
(RUBY RIVER)									
Cottonwood	11E2	5900	24	10S	3W	1948	3,4	1
Cottonwood (Upper)	11E1	6400	30	10S	2W	1948	3,4	1
Flashlight	12D3	6950	22	8S	7W	1945	3,4,5	1
Tobacco Root	12D2	6900	13	4S	4W	1948	3,4	1
Vigilante	11D1	6125	28	9S	3W	1948	3,4	1
MADISON RIVER									
Hebgen	11E5	6550	22	11S	3E	1934	1,2,3,4,5	3
West Yellowstone	11E7	6700	34	13S	5E	1934	1,2,3,4,5	3
Norris Basin	10E2	7500	44°-42'		110°-42'	1935	3,4	6
GALLATIN RIVER									
Devil's Slide	10D4	8100	14	5S	6E	1935	2,3,4,5	2,1
Hood Meadow	10D3	6600	22	4S	6E	1934	2,3,4,5	2,1
Mystic Lake	10D2	6600	30	3S	7E	1935	2,3,4	7
New World	10D1	6700	24	3S	6E	1939	1,2,3,4,5	7
21-Mile	11E6	7150	1	11S	5E	1934	1,2,3,4,5	3
MISSOURI RIVER MAIN STEM									
Chessman Reservoir	12C5	6200	2	8N	5W	1936	1,2,3,4,5	3
Crystal Lake	9C1	6100	19	12N	18E	1941	3,4	1,2
Grasshopper	10C2	7000	19	9N	8E	1938	3,4	2
Kings Hill	10C1	7950	35	13N	7E	1937	3,4,5	3
Picnic Grounds	12C6	6500	10	5N	6W	1940	2,3,4	4
Pipestone Pass	12D1	7200	11	1N	7W	1938	2,3,4,5	1
Stemple Pass	12C2	6900	16	13N	7W	1934	3,4,5	3
Ten Mile Creek L	12C2	6250	13	8N	6W	1935	1,2,3,4,5	3
Ten Mile Creek M	12C3	6800	13	8N	6W	1934	1,2,3,4,5	3
Ten Mile Creek U	12C4	8000	19	8N	5W	1935	1,2,3,4,5	3
(TETON RIVER)									
Freight Creek	12A1	6000	13	26N	10W	1948	3,4	1
Waldron Creek	12B2	5600	16	25N	9W	1948	3,4	1
West Fork	12B1	6000	6	25N	9W	1948	3,4	1
(SUN RIVER)									
Benchmark	12B8	5500	9	20N	10W	1948	3,4	1
Cabin Creek	12B6	5400	33	23N	10W	1949	3,4	1,2
S-Bull	12B9	5600	36	20N	10W	1948	3,4	1,2
Oates Park	12B5	5300	31	24N	10W	1949	3,4	1,2
Goat Mountain	12B7	7000	20	22N	10W	1934	3,4	3
Wrong Ridge	12B3	6800	17	25N	10W	1949	3,4	1,2
Wrong Creek	12B4	5700	32	25N	10W	1949	3,4	1,2
(MARIAS RIVER)									
Marias Pass	13A5	5250	34	30N	14W	1936	1,2,3,4,5	3
(MILK RIVER)									
Rocky Boy	9A1	5200	15	28N	16E	1941	3,4	7
(MUSSELSHELL RIVER)									
Grasshopper	10C2	7000	19	9N	8E	1938	3,4	2
MISSOURI RIVER DRAINAGE (cont.)									
(UPPER YELLOWSTONE)									
Camp Senia	9D1	7890	2		8S	18E	1937	4	1
Canyon	10E3	7750	44°-44'			110°-30'	1938	1,2,3,4,5	6
Cooke City	10D7	7400	25		9S	14E	1937	1,2,3,4,5	6
Crevice Mt.	10D5	8400	22		9S	9E	1935	3,4	2
Independence	10D6	8000	22		7S	12E	1941	3,4	1
Lake Camp	10E4	7850	44°-34'			110°-24'	1937	1,2,3,4,5	6
Lupine Creek	10E1	7300	44°-54'			110°-37'	1938	1,2,3,4,5	6
Lodgepole	9E1	8200	32		56N	106W	1940	2,3,4,5	1,4
(SHIELDS RIVER)									
Porcupine	10C3	6500	10		4N	10E	1938	3,4	1
LOWER YELLOWSTONE									
(WIND RIVER) Wyoming									
Big Warm	9F12	8800	36		42N	109W	1955	2,3,4,5	1
Brooks Lake #3	10F8	9200	23		44N	110W	1939	2,3,4,5	1
Burroughs Creek	9F4	8800	15		43N	107W	1948	2,3,4,5	1
Dinwoodie	9F10	10000	21		39N	105W	1948	2,3,4,5	1
Dry Creek	9F9	9500	34		4N	6W	1948	2,3,4,5	1
DuNoir	9F6	8750	27		42N	108W	1940	2,3,4,5	1
East Fork	9F13	9200	23		44N	104W	1956	2,3,4,5	1
Geyser Creek	9F7	8500	12		41N	108W	1948	2,3,4,5	1
Little Warm	9F8	9500	24		41N	108W	1948	2,3,4,5	1
Sheridan R.S. #1	9F5	7500	3		42N	109W	1939	2,3,4,5	1
Sheridan R.S. #2	9F14	7500	3		42N	109W	1955	2,3,4,5	1
T-Cross Ranch	9F3	8000	1		43N	107W	1940	2,3,4,5	1
Togwotee Pass	10F9	9600	29		44N	110W	1936	2,3,4,5	11
(POPO AGIE RIVER) Wyoming									
Blue Ridge	802	9500	23		31N	101W	1939	2,3,4,5	1
Bruce's Camp	805	6500	24		32N	101W	1955	2,3,4	1
Hobb's Park	9G3	10000	22		2S	3W	1948	2,3,4,5	1
Mosquito Park R.S.	9G4	9500	23		2S	3W	1940	2,3,4,5	1
Sawmill Glade	801	8500	3		31N	101W	1939	2,3,4,5	1
South Pass	803	9000	13		30N	101W	1939	2,3,4,5	1
St. Lawrence	9F11	9000	26		1N	4W	1940	2,3,4,5	1
Trout Creek	902	8400	5		2S	2W	1948	2,3,4,5	1
(OWL CREEK) Wyoming									
Beavers Mill	9F2	8900	6		43N	102W	1948	2,3,4,5	1
Owl Creek	8F1	8700	36		43N	101W	1948	2,3,4,5	1
(GREYBULL RIVER) Wyoming									
Timber Creek #1	9E2	8800	25-		47N	103W	1948	2,3,4,5	1
Timbar Creek #2	9E3	8800	25		47N	103W	1955	2,3,4,5	1
Wood RIver #1	9F1	8000	28		46N	103W	1939	2,3,4,5	1
Wood RIver #2	9F15	8000	28		46N	103W	1956	2,3,4,5	1
(SHOSHONE RIVER) Wyoming									
East Entrance	10E6	7000	17		52N	109W	1948	1,2,3,4,5	6
Sylvan Pass	10E5	7100	12		52N	110W	1936	1,2,3,4,5	6
(NOWOOD CREEK) Wyoming									
Cold Springs Camp	7E25	8700	1		50N	88W	1956	2,3,4,5	1
Medicine Lodge Lks	7E24	9500	7		51N	87W	1956	2,3,4,5	1
Munkers Pass	7E8	9700	11		48N	85W	1950	2,3,4,5	1
North Powder	7E36	8300	20		47N	85W	1956	2,3,4,5	1
Onion Gulch	7E27	8100	31		48N	85W	1956	2,3,4,5	1
Tensleep Lake	7E26	9075	33		50N	86W	1956	2,3,4,5	1
Tensleep R.S.	7E7	8300	30		49N	86W	1935	2,3,4,5	1
Tyrell R.S.	7E35	8300	30		49N	86W	1956	2,3,4,5	1
(SHELL CREEK) Wyoming									
Bald Mountain	7E21	9600	33		56N	91W	1956	2,3,4,5	1
Beaver-Tongue Div.	7E20	9200	12		55N	91W	1956	2,3,4,5	1
Bone-Spring Div.	7E18	9200	32		55N	89W	1956	2,3,4,5	1
Granita Creek Camp	7E22	7800	15		53N	89W	1956	2,3,4,5	1
Granite Pass	7E17	8950	19		54N	88W	1956	2,3,4,5	1
Horse-Trail Div.	7E19	9200	29		55N	90W	1956	2,3,4,5	1
Ranger Creek	7E4	8800	32		53N	88W	1935	2,3,4,5	1
Shell Creek	7E23	9600	12		52N	88W	1956	2,3,4,5	1
(PORCUPINE CREEK) Wyoming									
Five Spgs. Falls	7E31	7500	19		56N	92W	1956	2,3,4,5	1
Medicine Wheel	7E30	9000	24		56N	92W	1956	2,3,4,5	1
(TONGUE RIVER) Wyoming									
Beaver Tongue Div.	7E20	9200	12		55N	91W	1956	2,3,4,5	1
Big Goose #1	7E2	7700	4		53N	86W	1935	2,3,4,5	1
Big Goose #2	7E32	7700	4		53N	86W	1955	2,3,4,5	1
Bone-Spring Div.	7E18	9200	32		55N	89W	1956	2,3,4,5	1
Burgess R.S. #1	7E1	7900	36		56N	89W	1950	2,3,4,5	1
Burgess R.S. #2	7E33	7900	36		56N	89W	1955	2,3,4,5	1
Dome Lake #1	7E3	8800	11		53N	87W	1950	2,3,4,5	1
Dome Lake #2	7E34	8800	11		53N	87W	1950	2,3,4,5	1
Gloom Creek	7E14	9300	32		55N	87W	1956	2,3,4,5	1
Granite Pass	7E17	8950	19		54N	88W	1956	2,3,4,5	1
MISSOURI RIVER DRAINAGE (cont.)									
(TONGUE RIVER cont.)									
Horse Trail Div.	7E19	9200	29		55N	90W	1956	2,3,4,5	1
Lake Geneva	7E16	9000	7		52N	86W	1956	2,3,4,5	1
North Tongue	7E15	8800	17		55N	89W	1956	2,3,4,5	1
Sibley Lake	7E11	8000	10		55N	88W	1956	2,3,4,5	1
Sucker Creek	7E12	9000	19		55N	87W	1956	2,3,4,5	1
Steamboat Point	7E10	7500	32		56N	87W	1956	2,3,4,5	1
Wood Rock G.S.	7E13	8500	3		54N	88W	1956	2,3,4,5	1
(POWDER RIVER) Wyoming									
Crazy Woman	6E2	8200	6		47N	84N	1956	2,3,4,5	1
Muddy Creek G.S.	6E1	7800	2		48N	84N	1956	2,3,4,5	1
Munkers Pass	7E8	9700	11		48N	85W	1950	2,3,4,5	1
North Powder #2	7E36	8300	20		47N	85W	1956	2,3,4,5	1
Onion Gulch	7E27	8100	31		48N	85W	1956	2,3,4,5	1
Soldier Park	7E5	8700	36		51N	85W	1950	2,3,4,5	1
Sour Dough	7E6	8500	17		49N	84W	1936	2,3,4,5	1
COLUMBIA RIVER BASIN									
KOOTENAI RIVER									
Baree Mountain	15B1	6000	1		25N	31W	1937	4,5,5½	2
Blue Bird Basin	14A1	6800	24		37N	26W	1937	4,5,5½	1,2
Red Mountain	15A1	6000	4		36N	29W	1937	3,4,5,5½	1,2
Weasel Divide	14A7	5450	8		37N	24W	1955	4,5,5½	1,2
FLATHEAD RIVER									
Basin Creek	13B14	5000	11		19N	12W	1951	2,3,4,5	2
Big Creek	13B3	6750	6&7		22N	18W	1941	3,4,5	5
Brush Creek	14A4	5000	13		30N	26W	1937	3,4,5	1,2
Cattle Queen	13A1	4700	7		35N	17W	1939	3,4,5	6
Desert Mountain	13A2	5600	24		31N	19W	1937	1,2,3,4,5	1,2
Hell Roaring Div.	14A3	5770	35		32N	22W	1942	3,4,5	1,2
Holbrook	13B13	4530	18		21N	13W	1951	1,2,3,4,5	2
Kishenehn	14A6	4000	14		37N	22W	1954	4,5	6
Logan Creek	14A5	4300	34		30N	24W	1937	3,4,5	2
Marias Pass	13A5	5250	34		30N	14W	1934	1,2,3,4,5	3
Quintonkon	13A13	3800	11		26N	17W	1951	2,3,4,5	1,2
Spotted Bear Mt.	13B2	7000	23		25N	15W	1948	3,4,5	1,2
Strawberry Lake	13A10	6500	11		28N	19W	1948	3,4,5	2
Trinkus Lake	13B1	6500	9		25N	17W	1948	3,4,5	2
Trout Lake	13A12	3600	21		28N	17W	1948	3,4,5	1,2
Twin Creeks	13B11	3580	14		26N	16W	1951	2,3,4,5	1,2
Upper Holland Lk.	13B5	7000	28		20N	16W	1948	3,4,5	2
CLARK FORK									
Baree Mountain	15B1	6000	1		25N	31W	1937	4,5,5½	2
Coyote Hill	13B10	4200	12		18N	16W	1952	1,2,3,4,5	2
El Dorado Mine	13C9	7800	23		8N	12W	1946	4	1
Freezeout Summit	15B10	6800	21		15N	27W	1951	4,5	2
Gold Creek Lk.	13C10	7200	14		8N	12W	1946	4	1
Hoodoo Summit	15C1	6200	9&16		14N	27W	1937	4,5	2
Intergaard	13C4	6450	6		5N	13W	1939	2,3,4	4
Lubrecht Forest #6	13C8	5400	11		14N	15W	1951	1,2,3,4,5	12
North Fork Jocko	13B7	6330	3		17N	17W	1941	3,4,5	5
Picnic Grounds	12C6	6500	10		5N	6W	1940	2,3,4	4
Pipestone Pass	12D1	7200	11		1N	7W	1938	2,3,4,5	1
Slide Rock Mt.	13C2	7100	26		10N	16W	1937	4	1
Southern Cross	13C5	6500	8		5N	13W	1939	2,3,4	4
Stemple Pass	12C1	6900	16		13N	7W	1934	3,4,5	3
Storm Lake	13C7	7780	19		4N	13W	1939	2,3,4	1
Stuart Mill	13C6	6500	19		5N	13W	1939	2,3,4	4
Stuart Mountain	13C1	7400	6		14N	18W	1936	4	1,2
TV Mountain	14B1	6800	33		15N	19W	1956	1,2,3,4,5	1
BITTERROOT RIVER									
East Fork R.S.	13D1	5400	16		2N	17W	1937	4	1
Gibbons Pass	13D2	7100	4		2S	19W	1934	1,2,3,4,5	3,1
Lolo Pass	14C5	5230	16		38N	15E	1956	3,4,5,5½	2
Mud Creek Pasture	14C1	4500	24		11N	24W	1937	3	1
Nez Perce Camp	14D2	5580	19&20		1S	23W	1937	3,4,5	1
Powell R.S.	14C6	4230	33		37N	14E	1956	3,4,5,5½	2
Skalkaho Summit	13C3	7259	30		6N	17W	1937	4	1
SASKATCHEWAN RIVER BASIN									
ST. MARY RIVER									
Josephine Upper	13A15	6000	48°-50'		113°-42'	1956	5	3,9
Josephine Lower #9	13A14	4900	48°-47'		113°-41'	1956	5	
Mount Allen #7	13A7	7000	48°-44'		113°-40'	1922	5	3,9
Piegan Pass #4	13A4	5000	48°-46'		113°-40'	1922	5	3,9
Piegan #6	13A6	6500	48°-45'		113°-42'	1922	5	3,9
Ptarmigan #8	13A8	5800	48°-50'		113°-42'	1922	5	3,9

a. Numerals 1,2,3,4 and 5 refer to January 1, February 1, March 1, April 1 and May 1.

b. Numerals refer to Agency that secures the snow survey as follows:

1. Soil Conservation Service
2. U. S. Forest Service
3. U. S. Geological Survey
4. Montana Power Company
5. U. S. Indian Service
6. National Park Service
7. Montana Experiment Station
8. City of Bozeman
9. Dominion Water & Power Bureau
10. U. S. Fish and Wildlife Service
11. U. S. Bureau of Reclamation
12. Montana State Forestry School

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MONTANA SNOW SURVEYS - MAY 1, 1957

MISSOURI BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS						
			Date of Survey	1957 Snow Depth (In.)	Water Content (In.)	Past Record Water Content			Total Years of Record
						1956	1955	15-Year Average 1938-52	
JEFFERSON RIVER									
(Rock-Beaverhead)									
Lakeview Ridge	11E3	7400	5/1	35	11.0	4.7	12.2	7.0*	6
Lakeview Canyon	11E4	6930	5/1	40	12.2	7.0	11.5	9.8*	6
Camp Creek	12E3	6800	4/29	17	5.1	-	-	5.0*	1
(Big Hole)									
Gibbons Pass	13D2	7100	4/30	63	26.0	27.2	24.2	20.0*	21
(Wise River)									
Elk Horn	13D15	8450	4/30	34	10.6	9.8	11.0	6.7*	14
MADISON RIVER									
Hebgen	11E5	6550	4/27	35	12.4	1.6	7.8	2.6	23
W. Yellowstone	11E7	6700	4/27	28	10.8	5.7	8.4	3.5	23
21-Mile	11E6	7150	4/28	57	21.5	17.7	15.0	11.2	23
Norris Basin	10E2	7500	5/2	23	8.1	5.7	8.3	2.4*	6
GALLATIN RIVER									
Devil's Slide	10D4	8100	4/29	73	24.6	26.2	22.3	22.0	22
Hood Meadow	10D3	6600	4/30	29	6.9	5.4	10.8	4.3	22
21-Mile	11E6	7150	4/28	57	21.5	17.7	15.0	11.2	23
MISSOURI RIVER MAIN STEM									
Chessman Res.	12C5	6200	4/29	9	3.1	2.3	7.4	1.6	21
King's Hill	10C1	7950	5/1	40	13.4	12.3	16.1	12.1*	16
Pipestone Pass	12D1	7200	4/30	17	5.2	0.7	9.8	2.1*	17
Stemple Pass	12C1	6900	4/30	31	9.5	9.4	11.4	6.6*	22
Tenmile, Lower	12C2	6250	4/28	22	6.6	2.7	8.4	2.0	21
Tenmile, Middle	12C3	6800	4/27	28	11.9	9.9	13.8	6.9	22
Tenmile, Upper	12C4	8000	4/27	48	15.1	14.7	17.7	10.4	21
(Sun River)									
Goat Mountain	12B7	7000				12.2	-	2.9*	9
(Marias River)									
Marias Pass	13A5	5250	4/30	42	17.0	21.4	16.0	9.9	22
UPPER YELLOWSTONE									
Canyon	10E3	7750	4/30	48	17.3	17.4	14.5	11.6*	12
Cooke City	10D7	7400	5/1	27	8.2	6.8	6.6	5.5*	12
Lake Camp	10E4	7850	4/30	33	9.3	15.2	8.8	8.4*	10
Lodgepole, Wyo.	9E1	8200	5/1	40	12.6	16.0	9.2	9.5**	17
Lupine	10E1	7300	5/2	26	8.9	9.4	10.5	9.1*	6

* Average for period of record

** Average is for less than 15 years of record in the 1938-52 period

MONTANA SNOW SURVEYS - MAY 1, 1957

MISSOURI BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS Date of Survey	1957 Snow Depth (In.)	Water Content (In.)	Past Record Water Content 1956	1955	15-Year Average 1938-52	Total Years of Record
LOWER YELLOWSTONE									
Big Warm	9F12	8800	4/27	39	11.8	13.3	8.7	-	2
Brook's Lake	10F8	9200	4/26	78	28.1	37.1	27.9	26.5**	20
Burroughs Creek	9F4	8800	4/28	45	15.7	23.5	9.4	16.4*	8
Dinwoodie	9F10	10000	4/29	61	16.4	21.8	11.9	15.9*	8
Dry Creek	9F9	9500	4/29	42	10.4	11.2	5.7	8.4*	8
DuNoir	9F6	8750	4/27	36	10.7	14.0	6.9	7.4*	15
East Fork	9F13	9200							
Geyser Creek	9F7	8500	4/27	32	10.2	11.4	7.1	6.4*	8
Little Warm	9F8	9500	4/27	74	23.9	28.7	19.2	21.2*	8
Sheridan R.S. #2	9F14	7500	4/26	28	8.0	9.7	2.5	-	2
T-Cross Ranch	9F3	8000	4/28	24	7.4	9.0	2.7	4.4*	14
Togwotee Pass	10F9	9600	5/1	83	32.7	47.4	30.6	35.1*	8
LOWER YELLOWSTONE (Popo Agie River)									
Blue Ridge	8G2	9500	5/4	48	15.3	15.9	11.0	12.5**	17
Bruce's Camp	8G5	6500				0	-	-	1
Hobb's Park	9G3	10000	5/2	79	22.7	27.3	19.0	23.1*	8
Mosquito Park R.S.	9G4	9500	5/2	44	13.9	9.7	8.0	7.8*	12
Sawmill Glade	8G1	8500	5/4	33	11.6	4.5	3.2	6.8**	17
South Pass	8G3	9000	5/4	56	19.0	19.1	14.0	14.6**	17
St. Lawrence R.S.	9F11	9000	4/30	39	11.4	9.4	6.9	7.5*	13
Trout Creek	9G2	8400	5/2	31	10.4	0	0.8	2.0*	8
LOWER YELLOWSTONE (Owl Creek)									
Beavers Mill	9F2	8900	4/26	35	9.4	N.R.	5.1	7.7*	7
Owl Creek	8F1	8700	4/26	28	8.2	6.8	5.8	7.3*	7
LOWER YELLOWSTONE (Greybull River)									
Timber Creek #2	9E3	8800	4/28	30	9.0	3.0	0	-	2
Wood River #2	9F15	8000	4/27	46	12.4	3.5	7.3	-	2
LOWER YELLOWSTONE (Shoshone River)									
East Entrance	10E6	7000	4/28	28	10.2	2.2	1.3	-	3
Sylvan Pass	10E5	7100	4/28	45	15.1	13.0	9.0	8.8*	15

* Average for period of record

** Average is for less than 15 years of record in the 1938-52 period

MONTANA SNOW SURVEYS - MAY 1, 1957

MISSOURI BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS: Date of Survey	1957 Snow Depth (In.)	1957 Water Content (In.)	Past Record Water Content: 1956	1955	15-Year Average 1938-52	Total Years of Record
LOWER YELLOWSTONE (Nowood Creek)									
Cold Springs Camp	7E25	8700	5/1	23	6.1	6.6	-	-	1
Medicine Lodge Lks	7E24	9500		N.R.		10.8	-	-	1
Munkres Pass(Muddy)	7E8	9700	5/1	38	11.4	12.4	9.6	9.0*	6
Onion Gulch	7E27	8100	5/1	29	8.2	7.3	-	-	1
Tensleep Lake	7E26	9075		N.R.		11.4	-	-	1
Tensleep R.S.	7E7	8300	5/4	8	1.9	3.2	7.0	4.5	21
LOWER YELLOWSTONE (Shell Creek)									
Bald Mountain	7E21	9600	4/23	78	23.5	24.2	-	-	1
Beaver-Tongue Div.	7E20	9200	4/24	66	19.3	23.6	-	-	7
Bone-Spring Div.	7E18	9200	4/25	70	19.8	20.8	-	-	1
Granite Creek Camp	7E22	7800	4/30	0	0	0	-	-	1
Granite Pass	7E17	8950	4/25	66	19.9	21.2	-	-	1
Ranger Creek	7E4	8800	4/30	27	9.2	8.2	8.3	6.4**	20
Shell Creek	7E23	9600	4/30	54	15.6	17.9	-	-	-
LOWER YELLOWSTONE (Porcupine Creek)									
Five Springs Falls	7E31	7500	5/1	18	5.6	4.6	-	-	1
Medicine Wheel	7E30	9000	4/23	59	16.3	15.5	-	-	1
LOWER YELLOWSTONE (Tongue River)									
Beaver-Tongue Div.	7E20	9200	4/24	66	19.3	23.6	-	-	1
Big Goose #1	7E2	7700	4/28	25	8.4	4.4	2.2	2.6	21
Big Goose #2	7E32	7700	4/28	37	11.2	9.9	7.8	-	2
Bone-Spring Div.	7E18	9200	4/25	70	19.8	20.8	-	-	1
Burgess R.S. #1	7E1	7900	4/24	35	11.8	8.2	9.2	11.9*	6
Burgess R.S. #2	7E33	7900	4/24	36	8.4	8.7	9.1	-	2
Dome Lake #1	7E3	8800	4/28	35	11.2	9.6	7.9	7.7*	6
Dome Lake #2	7E34	8800	4/28	43	13.7	14.2	-	-	1
Gloom Creek	7E14	9300	4/26	61	16.0	17.3	-	-	1
Granite Pass	7E17	8950	4/25	66	19.9				
North Tongue	7E15	8800	4/24	46	14.2	13.9	-	-	1
Sibley Lake	7E11	8000	4/27	42	10.9	10.4	-	-	1
Sucker Creek	7E12	9000	4/26	54	15.5	13.8	-	-	1
Steamboat Point	7E10	7500	4/27	39	11.0	9.8	-	-	1
Wood Rock G.S.	7E13	8500	4/26	48	15.2	13.7	-	-	1
LOWER YELLOWSTONE (Powder River)									
Muddy Creek G.S.	7E28	7800	5/2	13	3.6	5.1	-	-	1
Munkres Pass	7E8	9700	5/1	38	11.4				
Onion Gulch	7E27	8100	5/1	29	8.2	7.3	-	-	1
Soldier Park	7E5	8700	4/30	20	6.6	11.0	4.5	5.0*	6
Sour Dough	7E6	8500	4/30	34	10.4	10.8	4.2	5.4**	17

* Average for period of record

** Average is for less than 15 years of record in the 1938-52 period

MONTANA SNOW SURVEYS - MAY 1, 1957

COLUMBIA BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS: Date of Survey	1957 Snow Depth (In.)	1957 Water Content (In.)	Past Record Water Content: 1956	1955	15-Year Average 1938-52	Total Years of Record
KOOTENAI RIVER (above Libby, Montana)									
Baree Creek	15B11	5500	5/1	95	46.6	51.0	-	-	1
Baree Mt.	15B1	6000	5/1	100	45.6	57.4	43.5	40.3	20
Blue Bird	14A1	6800	5/1	81	36.4	52.6	43.0	36.4*	18
Ferguson	Can	3000	4/30	33	17.1	20.3	17.8	15.8*	11
Fernie	Can	3500	5/2	0	0	5.9	7.9	1.7*	11
New Fernie	Can	4100	5/2	0	0	8.6	13.9	5.6*	6
Gray Creek	Can	5100	4/27	62	21.5	20.4	23.2	19.6*	9
Kimberley	Can	3800	4/29	0	0	1.4	-	-	1
Marble Canyon	Can	5000	4/30	43	14.2	11.6	11.3	13.1*	10
Red Mountain	15A1	6000	4/30	45	18.4	25.2	19.2	14.8*	19
Sandon	Can	3500	5/2	10	5.3	6.3	13.7	4.3*	8
Sinclair Pass	Can	4500	4/30	5	1.9	3.4	5.5	2.1*	7
Smith Creek	16A1	4800	4/30	90	43.2	55.4	50.0	34.4*	18
Sullivan Mine	Can	5100	4/30	34	12.1	16.1	11.6	9.5*	11
Weasel Divide	14A7	5450	5/1	75	32.6	41.0	35.4	-	2
FLATHEAD RIVER									
Basin Creek	13B14	5000	4/29	0	0	0.0	6.1	1.0*	6
Big Creek	13B3	6750	5/1	100	48.1	48.5	43.4	43.1*	8
Blue Bird	14A1	6800	5/1	81	36.4	52.6	43.0	36.4*	18
Brush Creek	14A4	5000	4/25	37	12.3	13.7	13.8	5.8*	12
Coyote Hill	13B10	4200	5/1	2	0.7	0.9	4.8	1.5*	10
Desert Mountain	13A2	5600	4/26	43	15.0	15.5	14.3	9.6	20
Goat Mountain	12B7	7000				12.2	-	2.9*	9
Hell Roaring Div.	14A3	5700	4/24	77	30.6	32.0	27.9	26.8*	15
Holbrook	13B13	4530	4/29	0	0	0.0	5.8	0.7*	6
Logan Creek	14A5	4300	4/25	20	6.9	4.2	7.3	1.1*	18
Marias Pass	13A5	5250	4/30	42	17.0	21.4	16.0	9.9	22
N. Fork Jocko	13B7	6330	4/23	92	42.9	48.3	45.6	35.6*	9
Spotted Bear Mt.	13B2	7000	4/30	24	8.9	10.9	12.5	12.4*	6
Strawberry Lake	13A10	6500	4/29	97	42.9	41.2	39.7	40.4*	8
Trinkus Lake	13B1	6500	4/29	90	42.0	36.4	42.1	40.8*	8
Trout Lake	13A12	3600	4/29	15	6.4	5.9	14.5	8.8*	9
Twin Creeks	13B11	3580	4/20	0	0	0.0	4.5	0.0*	6
Upper Holland	13B5	7000	4/30	81	34.2	39.5	33.9	33.8*	6
ST. MARY RIVER									
Iceberg Lake	13A14	5750	5/2	56	26.2	38.8	28.2	19.7	35
Mount Allen	13A7	7250	5/1	101	48.3	49.4	46.3	39.9	35
Josephine Upper #4	13A4	5000	5/1	44	19.3	23.9	24.0	11.5	35
Josephine Lower #9	13A15	4900	5/1	42	17.6	-	-	-	1
Piegan Pass #6	13A6	6250	5/1	84	41.3	45.4	42.0	29.5	35
Ptarmigan #8	13A8	6000	5/2	80	39.1	-	34.3	29.7	19

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MONTANA SNOW SURVEYS - MAY 1, 1957

COLUMBIA BASIN DRAINAGE BASIN AND SNOW COURSE	No.	Elev.	SNOW COVER MEASUREMENTS: Date of Survey	1957 Snow Depth (In.)	Water Content (In.)	Past Record Water Content: 1956	1955	15-Year Average 1938-52	Total Years of Record
CLARK FORK BASIN									
Baree Mt.	15B1	6000	5/1	100	46.6	57.4	43.5	40.3	20
Coyote Hill	13B10	4200	5/1	2	0.7	0.9	4.8	2.4#	10
Chessman Res.	12C5	6200	4/29	9	3.1	2.3	7.4	1.6	21
Fish Lake, Idaho	21B4	5000	4/29	99	42.9	-	46.5	-	1
Freezeout Summit	15B10	7000	5/1	84	36.2	50.0	36.0	27.6*	15
Hoodoo Creek	15C1	6200	5/1	119	51.0	63.1	55.3	36.9	14
Lubrecht For. #6	13C8	5400	5/1	0	0	0	0	0.25#	5
North Fork Jocko	13B7	6330	4/29	92	42.9	48.3	45.6	40.6#	9
Pipestone Pass	12D1	7200	4/30	17	5.2	0.7	9.8	2.1#	17
Smith Creek	16A1	4800	4/30	90	43.2	3.4	3.5	3.6#	7
Stemple Pass	12C1	6900	4/30	31	9.5	9.4	11.4	6.6*	22
Storm Lake #2	13C7	7780	4/26	53	16.4	18.0	17.9	13.6*	15
Tenmile, Lower	12C2	6250	4/28	22	6.6	2.7	8.4	2.0	21
Tenmile, Middle	12C3	6800	4/27	38	11.9	9.9	13.8	6.9	22
Tenmile, Upper	12C4	8000	4/27	48	15.1	14.7	17.7	10.4	21
TV Mountain	14B1	6800	4/30	55	21.1	23.4	-	-	1
**49 Meadows	15B3	5000	4/29	62	28.4	32.3	39.2	26.4*	16
**Lookout	15B2	5250	4/29	77	35.3	42.7	33.6	22.1	20
BITTERROOT									
Gibbons Pass	13D2	7100	4/30	63	26.0	27.2	24.2	20.0*	21
Nezperce Pass	14D1	6575	5/2	34	11.5	15.5	18.2	10.0*	19
Nezperce Camp	14D2	5580	5/2	34	11.7	15.4	17.3	4.7*	18
**Lolo Pass	14C5	5230	4/30	70	33.8	35.6	-	-	1
Packers Meadow	14C2	5700	4/30	43	21.5	23.9	28.5	12.9	19

Average for period of record
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STATUS OF RESERVOIR STORAGE
MISSOURI RIVER IN MONTANA
May, 1957

BASIN & STREAM	RESERVOIR	USABLE CAPACITY 1000's AF	THOUSAND ACRE FEET IN STORAGE ABOUT MAY FIRST 1957	1956	1955	15-Yr.Avg. 1938-52
MISSOURI RIVER BASIN						
Beaverhead	Lima	84.0	12.3	44.7	34.1	74.9*
Madison River	Hebgen Lake	345.0	175.7	305.0	278.5	311.5
Madison River	Ennis Lake	41.0	37.5	29.0	35.9	33.4
Hyalite Creek	Middle Creek	8.0	3.7	5.8	5.9	6.0*
Missouri River	Canyon Ferry	2,043.0	1,478.0	1,909.0	1,486.0	-
Missouri River	Hauser & Helena	62.5	62.5	60.8	59.6	50.1*
Missouri River	Lake Helena	10.4	10.5	9.8	9.4	6.6*
Missouri River	Holter Lake	81.9	12.6	73.7	81.7	67.6
N. Fk Sun River	Gibson	105.0	46.6	95.5	95.3	97.1
N. Fk Sun River	Willow Creek	32.3	24.5	28.9	26.8	17.4
N. Fk Sun River	Pishkun	32.0	19.0	29.8	27.6	30.8
Tiber	Marias	1,316.0	577.5	351.9	-	-
Birch Creek	Swift	30.0	28.7	30.3	30.2	27.8
Dupuyer & Birch	Lake Francis	112.0	92.0	104.9	107.0	84.5
Missouri River	Ft. Peck	19,000.0	5,757.0	5,595.0	9,716.0	11,560.1
Milk River	Fresno	127.2	124.4	129.0	135.2	81.6
W. Rosebud Cr.	Mystic Lake	20.8	3.3	9.8	2.6	6.3
MISSOURI RIVER BASIN - WYOMING						
Shoshone River	Buffalo Bill	380.3	97.6	130.4	119.3	266.6
Wind River	Boysen	560.0	202.5	-	216.1	-
Wind River	Pilot Butte	31.6	27.7	27.3	29.4	20.9*
Bull Creek	Bull Lake	152.0	60.1	51.9	61.1	48.6*
Belle Fourche	Key Hole	190.3	3.2	15.9	32.1	0.5*
MISSOURI RIVER BASIN - NORTH DAKOTA						
Heart River	Heart Butte	54.8	50.6	62.2	60.3	66.1*
Heart River	Dickerson	4.3	5.1	4.5	4.4	5.0*
Missouri River	Garrison Lake	13,805.0	11,025.0	1,089.0	662.2	-
MISSOURI RIVER BASIN - SOUTH DAKOTA						
Belle Fourche	Belle Fourche	185.2	62.5	119.0	101.7	132.4*
Cheyenne River	Angostura	92.0	39.8	74.4	89.8	33.6*
Cheyenne River	Deerfield	15.1	9.2	11.3	12.1	14.2*
Grand River	Shadehill	84.0	77.9	82.7	79.7	-
Missouri River	Ft. Randall	2,401.6	2,132.5	1,684.3	-	-

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STATUS OF RESERVOIR STORAGE
COLUMBIA RIVER IN MONTANA
May, 1957

BASIN & STREAM	RESERVOIR	USABLE CAPACITY 1000's AF	THOUSAND ACRE FEET IN STORAGE ABOUT MAY FIRST 1957	1956	1955	15-Yr.Avg. 1938-52
COLUMBIA RIVER BASIN						
Flint Creek	Georgetown Lk	31.0	16.0	21.0	24.4	23.8
S.Fk. Flathead 5/	Hungry Horse	3,500.0	1,970.0	2,850.0	2,631.0	1,822.8*
Flathead River	Flathead Lake	1,791.0	678.9	1,661.0	1,145.0	1,619.0
Flathead River 6/	Camas Res.	42.8	39.6	42.8	42.4	30.1*
Flathead River 7/	Mission Valley	98.6	35.3	86.8	69.1	64.7*
Jocko Creek	Lower Jocko Lk	7.6	-	5.8	5.2	4.4

5/ 4-year average

6/ Camas Reservoirs are shown as a sum of (4) small reservoirs on the west side of Flathead Lake located on Dry Creek and Little Bitterroot River

7/ Mission Valley Reservoirs are shown as a sum of (8) small reservoirs located south and east of Flathead Lake. Both Camas and Mission Valley reservoirs are operated by the Indian Irrigation Service

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Federal - State - Private

COOPERATIVE SNOW SURVEYS

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Furnishes the basic data necessary for forecasting water supply for irrigation, domestic and municipal water supply, hydro-electric power generation, navigation, mining and industry

"WATER IS THE WEST'S GREATEST RESOURCE"